

REMARKS

Claims 1-30 are pending in the present application, all of which are amended. No new matter has been added by any of the amendments. Support for the claim amendments can be found in the claims as originally filed, on p. 15, l. 16 through p. 16, l. 2, and elsewhere in the specification. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 101

The examiner rejects claims 21-30 under 35 U.S.C. § 101 as directed towards non-statutory subject matter. This rejection is respectfully traversed.

The examiner states that:

Claims 21-30 are rejected under 35 U.S.C. 10-1 because the claimed invention is directed to non-statutory subject matter. The claims recite a computer program product comprising steps implemented on a data processing system using instruction means to cause the data processing system to form a secure cellular telephone transmission system. However, the computer program product is not limited to a tangible embodiment. In view of Applicant's disclosure, specification page 15, line 16 to page 16, line 2, the instruction means, which are apart of the computer program product, are provided in a computer readable medium, which is not limited to tangible embodiments, but instead are defined as including both tangible embodiments (e.g., a recordable-type media) and intangible embodiments (e.g., transmission-type media). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

To overcome this type of 101 rejection the claims need to be amended to include only the physical computer media and not a transmission media or other intangible or non-functional media.

Office Action of September 30, 2005, pp. 2-3.

Applicants have amended claims 21-30. The claims as amended are statutory under 35 U.S.C. § 101. Claim 21 as amended, which is representative of these claims, is as follows:

21. (Currently Amended) A computer program product comprising:
a computer usable medium having computer usable program code for securing a cellular telephone transmission utilizing a conventional cellular telephone, said computer program product including:
computer usable program code for first receiving inputs intended for the conventional cellular phone into a computer system coupled between an external microphone and the conventional cellular telephone, wherein the conventional cellular telephone is incapable of encrypting or

decrypting signals and wherein the computer system is separate and apart from the conventional cellular telephone;

computer usable program code for receiving, within said computer system, an input signal from said microphone;

computer usable program code for encrypting, within said computer system, said input signal utilizing public key encryption to form an encrypted input signal;

computer usable program code for passing said encrypted input signal from said computer system to said conventional cellular telephone; and

computer usable program code for transmitting said encrypted input signal utilizing said conventional cellular telephone, wherein cellular telephone transmissions from said conventional cellular telephone are secured.

Claim 21 as amended includes the feature of a computer program product comprising a computer usable medium having computer usable program code for securing a cellular telephone transmission. The USPTO guidelines for evaluating computer-readable medium encoded with functional descriptive material, such as a computer program, expressly states that a claim to such computer-readable medium when so encoded is statutory subject matter. USPTO, *Interim Guideline for Examination of Patent Application for Patent Subject Matter Eligibility* (26 Oct. 2005) (hereinafter "The Guideline"). The Guideline provides, in relevant part:

"[A] claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory."

Id., p. 52.

The Guideline further provides:

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101.

...

These interim guidelines propose that such signal claims are ineligible for patent protection because they do not fall within any of the four statutory

classes of § 101. Public comment is sought for further evaluation of this question.

Id., pp. 55-56.

Claim 21 is directed to a computer usable medium having computer usable program code. As the Guideline provides, "a computer readable medium with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized" is statutory. Because claim 21 recites a computer program product for use in a data processing system, along with the other recited steps, claim 21 does describe a data structure that defines structural and functional interrelationships between the data structure, the computer software, and hardware components. Thus, claim 21 is patentable subject matter under 35 U.S.C. § 101, as explained under the Guideline.

In addition, the instant claim does not recite a signal. Rather, the claim recites a "computer readable medium" in which a signal is embedded. Claim 21 claims functional descriptive material encoded on a computer readable medium and does not claim signals encoded with functional descriptive material. For this reason, claim 21 thus falls under allowable statutory matter under 35 U.S.C. § 101. This assertion is fully supported by the specification that provides:

"Examples of computer readable media include recordable-type media, such as a floppy disk, a hard disk drive, a RAM, CD-ROMs, DVD-ROMs, and *transmission-type media*, such as digital and analog communication links, *wired or wireless communications links using transmission forms*, such as, for example, radio frequency and light wave transmissions."

Specification, pp. 14-15. (Emphasis added)

The specification and claim 21 are statutory subject matter because the claim is directed towards the *medium*, and not to the radio frequency or the light wave signals that may inherently be *used* in such media technologies. The use of radio frequency or light wave as a method of encoding or recording the computer program onto such medium does not render the medium itself non-statutory. Even in case of a CD-ROM, a laser form of light wave is used for accomplishing the encoding/recording of the information onto the CD-ROM, yet the CD-ROM remains a well-accepted computer readable medium. Encoding the air or glass fiber medium

with radio frequency or light wave similarly cannot render the air or glass fiber medium non-statutory under 35 U.S.C. § 101.

Thus, based on the MPEP, the Guideline, and applicable case law, claim 21 is statutory under 35 U.S.C. § 101. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 21 under 35 U.S.C. § 101. By virtue of their dependence from claim 21, the rejection of claims 22-30 should also be withdrawn.

II. Double Patenting

The examiner provisionally rejects claims 1-30 under obviousness-type double patenting over claims 1-30 of co-pending application 10/042,505. Applicants have included a terminal disclaimer with this response, thereby overcoming the rejection.

III. 35 U.S.C. § 103, Obviousness

The examiner rejects claims 1-30 as obvious over *Baugh et al.*, Apparatus for Voice Communication Over Local Area Networks, U.S. Patent 5,815,553 (September 29, 1998) (hereinafter *Baugh*) in view of *Herlin et al.*, Method for Secure Communications in a Telecommunications System, U.S. Patent 5,915,021 (June 22, 1999) (hereinafter *Herlin*). This rejection is respectfully traversed.

As to claim 1, the examiner states:

Regarding claim 1, *Baugh* discloses a method of providing a computer system with an input signal from a microphone (see Abstract; column 2, lines 58-62 and Figure 1, elements 50, 58 and 62); encrypting the input signal (column 8, lines 44-47); and transmitting the encrypted input signal to another destination using a communication medium (see column 3, lines 9-14 and Figure 11, elements 70 and 74). *Baugh* fails to specifically state the input signal is encrypted using public key techniques. *Herlin* discloses a method for sending a secure message in a telecommunications system using public key encryption (see column 5, lines 12-35 and column 9, lines 56-58 (... telecommunication equipment capable of encrypting and decrypting messages received over phone lines...)). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine *Baugh*'s apparatus for transmitting encrypted recorded messages with *Herlin*'s system for secure communications in a telecommunications system to gain the advantage of securing the recorded message from unauthorized disclosure by an eavesdropper who is monitoring the communication link. By using public key encryption, the recorded message can only be decrypted by the private key that corresponds to the

public key used to encrypt the message. [see *Herlin*; column 3, lines 60-67].

Office Action of September 20, 2005, pp. 4-5.

III.A. The Examiner Failed to State a *Prima Facie* Obviousness Rejection Against Claim 1 Because the Examiner Ignored Features of Claim 1

If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985). A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). In this case, the examiner has not considered all features of claim 1 and therefore the examiner has failed to state a *prima facie* obviousness rejection against claim 1.

Claim 1 as amended is as follows:

1. (Currently Amended) A method for securing cellular telephone transmissions utilizing a conventional cellular telephone, said method comprising the steps of:
 - providing a conventional cellular telephone, said conventional cellular telephone being incapable of independently encrypting or decrypting signals;
 - providing a computer system coupled between an external microphone and said conventional cellular telephone, wherein inputs into said conventional cellular telephone are received first by said computer system, said computer system being separate and apart from said conventional cellular telephone;
 - receiving, within said computer system, an input signal from said external microphone;
 - encrypting, within said computer system, said input signal utilizing public key encryption to form an encrypted input signal;
 - passing said encrypted input signal from said computer system to said conventional cellular telephone; and
 - transmitting said encrypted input signal utilizing said conventional cellular telephone, wherein cellular telephone transmissions from said conventional cellular telephone are secured.

The examiner ignored the claimed feature of providing a conventional cellular telephone. The examiner ignored the claimed feature that the conventional cellular telephone is incapable of independently encrypting or decrypting signals. The examiner ignored the claimed feature that the computer system is separate and apart from the conventional cellular telephone. The examiner ignored the claimed feature of passing the encrypted input signal from the computer system to the *conventional cellular telephone*. The examiner ignored the claimed feature of transmitting the encrypted input signal utilizing the *conventional cellular telephone*. The rejection addresses none of these claimed features. Therefore, under the standards of *In re Lowry* the examiner failed to state a *prima facie* obviousness rejection against claim 1.

III.B. The Examiner Failed to State a *Prima Facie* Obviousness Rejection Against Claim 1 Because the Proposed Combination Does Not Teach or Suggest All of the Features of Claim 1

In addition, the examiner failed to state a *prima facie* obviousness rejection against claim 1 because *Baugh* does not teach or suggest any of the claimed features mentioned in the preceding paragraph. *Baugh* does not teach or suggest using a conventional cellular telephone in the manner claimed; in fact, *Baugh* does not mention cellular telephones. *Baugh* does not teach or suggest that either computer system used in *Baugh*'s method is incapable of encrypting or decrypting signals, as claimed. *Baugh* does not teach or suggest that any computer system is separate and apart from the conventional cellular phone, as claimed. *Baugh* does not teach or suggest that signals are passed from a computer system to or from a conventional cellular telephone, as claimed. As shown above, the examiner has failed to establish otherwise.

Instead, *Baugh* is directed to a system for transmitting voice conversations in real time between two old computer systems, such as personal computers operating under the Windows® operating system. *Baugh* does mention encrypting signals between the computers, as identified by the examiner. Specifically, *Baugh* states:

The present invention also includes data encrypting. For use of data encryption within the present invention, the data is encrypted before writing to the remote voice file and decrypted when the file is read prior to playback.

Baugh, col. 8, ll. 44-47.

Although *Baugh* indicates that signals between the computers can be encrypted, *Baugh* does not teach or suggest that the signals are passed between a computer and a cellular telephone. Likewise, *Baugh* does not teach or suggest that either of the computers are incapable of encrypting the signals. On the contrary, *Baugh* seems to suggest that both computers are capable of encrypting and decrypting signals. For this reason, not only does *Baugh* not teach all of the features of claim 1, but *Baugh* itself specifically teaches away from the invention of claim 1.

Furthermore, *Herlin* is devoid of disclosure regarding the features of claim 1 discussed above. For this reason, the proposed combination does not teach all of the features of claim 1 and, accordingly, the examiner has failed to state a *prima facie* obviousness rejection of claim 1.

In addition, *Herlin* is directed to creation of two keys for use in cellular telephone communication. In each case, the sending and receiving cellular phones individually encrypt and decrypt data transmitted between the cellular phones. See, for example, the following portion of *Herlin*:

A method for sending a secure message in a telecommunications system utilizing public encryption keys. All authentication parameters of each of the users, including each user's decryption key that is known only to the user, are used to verify, by public key methods, the identity of a user sending a communication to another user of the system. During the authentication process, an encryption key for use in communications between the two users may also be generated. The generated encryption key may be a private session key. Once the initial authentication is completed, the private session key can be used to perform encryption that is less computationally demanding than public key methods. In an embodiment of the invention, two communicating users may use the method to authenticate each other and generate an encryption key that is used to encrypt subsequent communications between the users. During the process of this embodiment, two encryption keys are generated. A first encryption key is used only in the authentication process, and, a second encryption key is used in both the authentication process and as the key for encrypting subsequent communications. *Use of two encryption keys requires that each of the two users apply its decryption key to complete the authentication and encryption key agreement process successfully.*

Herlin, Abstract (emphasis supplied).

Thus, *Herlin* requires that each cellular phone be capable of encrypting and decrypting transmissions, in direct contradiction to features of claim 1 that requires that the cellular phones be incapable of independently encrypting and decrypting signals. Accordingly, the proposed

combination does not teach all of the features of claim 1 and the examiner has therefore failed to state a *prima facie* obviousness rejection against claim 1.

III.C. The Examiner Failed to State a *Prima facie* Obviousness Rejection Against Claim 1 Because Herlin Teaches Away from Claim 1

The examiner failed to state a *prima facie* obviousness rejection against claim 1 because *Herlin* teaches away from the invention of claim 1. As shown above, *Herlin* requires that each cellular phone be capable of encrypting and decrypting transmissions, in direct contradiction to features of claim 1 that requires that the cellular phones be incapable of independently encrypting and decrypting signals. Because *Herlin* directly teaches away from claim 1, no motivation exists to combine the references in the manner the examiner suggests. Hence, the examiner has failed to state a *prima facie* obviousness rejection against claim 1.

III.D. The Examiner Failed to State a *Prima facie* Obviousness Rejection Against Claim 1 Because the Examiner Failed to State a Proper Motivation to Combine the References

In addition, the examiner failed to state a *prima facie* obviousness rejection against claim 1 because the examiner did not state a proper motivation to combine the references. A proper *prima facie* case of obviousness cannot be established by combining the teachings of the prior art absent some teaching, incentive, or suggestion supporting the combination. *In re Napier*, 55 F.3d 610, 613, 34 U.S.P.Q.2d 1782, 1784 (Fed. Cir. 1995); *In re Bond*, 910 F.2d 831, 834, 15 U.S.P.Q.2d 1566, 1568 (Fed. Cir. 1990).

The examiner states that:

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine *Baugh's* apparatus for transmitting encrypted recorded messages with *Herlin's* system for secure communications in a telecommunications system to gain the advantage of securing the recorded message from unauthorized disclosure by an eavesdropper who is monitoring the communication link. By using public key encryption, the recorded message can only be decrypted by the private key that corresponds to the public key used to encrypt the message.

Office Action of September 20, 2005, pp. 4-5.

The examiner has failed to state a *prima facie* obviousness rejection against claim 1 because the examiner has not stated a proper teaching, suggestion, or motivation to combine the

references. Instead, the examiner has only stated a proposed advantage to combining the references. However, an advantage is not necessarily a teaching, suggestion, or motivation. To constitute a proper teaching, suggestion, or motivation, the examiner must establish that one of ordinary skill would both recognize the advantage and have a reason to implement the advantage. For example, a first reference may disclose the use of lasers to achieve nuclear fusion. A second reference may disclose that ultra-high power lasers deliver more energy. One of ordinary skill may recognize that an ultra-high power laser would be more useful to achieve nuclear fusion, though one of ordinary skill would be motivated to avoid combining the references because of the extreme expense of ultra-high power lasers. In this example, one of ordinary skill is motivated to avoid implementing the combination, even if he or she recognized the advantage; thus no teaching, suggestion, or motivation exists to combine the references.

In the case at hand, the examiner has not provided a sufficient reason why one of ordinary skill would recognize the proposed advantage or have a reason to implement it. The examiner states that the advantage to combining the references is to increase security. However, the proposed motivation does not actually exist because both reference already increase security. In view of this fact, one of ordinary skill would have no reason to look elsewhere for solutions to problems that both references solve. Additionally, the proposed advantage is overly broad to enable one of ordinary skill to include the specific features of claim 1 that the examiner ignored. For these reasons, the examiner's statement fails to provide a proper teaching, suggestion, or motivation to combine the references. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claim 1.

III.E. The Examiner Failed to State a *Prima facie* Obviousness Rejection Against Claim 1 Because the Examiner Used Impermissible Hindsight When Fashioning the Rejections

In addition, the examiner has failed to state a *prima facie* obviousness rejection against claim 1 because the examiner used impermissible hindsight when fashioning the rejection. Personal opinion cannot be substituted for what the prior art teaches because a *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). In this case, the examiner only stated an overly-broad advantage to combining the references without addressing the specific features of the claims. As shown

above, neither reference teaches or suggests the claimed features described above. Thus, one of ordinary skill would have no reason to combine or otherwise modify the references. Based on the plain disclosures in the references, the only suggestion to modify the references is found in Applicants' specification. Hence, the examiner must have used Applicants' specification to find a teaching, suggestion, or motivation to combine the references. Doing so is impermissible hindsight and fails to comport with the standards of *Graham v. John Deere Co.*, 383 U.S. 1 (1966), which requires a proper teaching, suggestion, or motivation to combine or modify references to achieve a proper obviousness rejection. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claim 1.

III.F. *Baugh* and *Herlin* Would Not Be Combined By One of Ordinary Skill in the Art Because They Address Different Problems

One of ordinary skill would not combine the references to achieve the invention of claim 1 because the references are directed towards solving different problems. It is necessary to consider the reality of the circumstances -- in other words, common sense -- in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor. *In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1992); *In re Wood*, 599 F.2d 1032, 1036, 202 U.S.P.Q. 171, 174 (CCPA 1979). The cited references do not address the same problems.

In the case at hand, *Baugh* is directed to solving the problem of increasing the speed of voice communications between computers connected on a local area network. For example, *Baugh* provides that:

Previous systems which provided spoken messages to be transmitted between two computer across a local area network (LAN) were not able to deliver the spoken messages in real-time. Rather, the previous systems operated in a batch mode capacity. These type of voice communication systems recorded an entire spoken message and then play that entire spoken message back at the receiver, although with a substantial time delay between the recording of the message and the playing back.

In addition, encrypted voice is required for some applications which typically required the acquisition, installation, configuration, and use of expensive dedicated encryption equipment.

Baugh, col. 1, ll. 18-30.

On the other hand, *Herlin* is directed to the problem of increasing the speed with which cellular phones can encrypt and decrypt signals. For example, *Herlin* provides as follows:

Since the decryption key of each user may be kept totally private, secure methods of communication between users in a telecommunications system that require each user to use and apply his/her decryption key, so that his/her identity can be verified to the other users, would provide good security. However, the use of public key encryption may require intensive use of computational resources in a communicating device such as a mobile phone. The use of public key algorithms to encrypt and decrypt every message or voice communication could be very computationally expensive as compared to private key algorithms.

It would, therefore, be advantageous to provide a method for secure communications between users operating in a telecommunications system, in which public key methods were used to verify the identities of communicating parties, and in which less computationally expensive encryption methods were used once identities are verified.

Herlin, col. 4, ll. 34-51.

Thus, the references address completely distinct problems that are unrelated to each other. Because the references address completely distinct problems, one of ordinary skill would have no reason to combine or otherwise modify the references to achieve the claimed invention. Thus, one of ordinary skill in the art would not combine these references as proposed by the examiner.

III.G. Remaining Claims

Independent claims 11 and 21 contain features similar to those presented in claim 1. Therefore, the examiner has failed to state *prima facie* obviousness rejections against claims 11 and 21, at least for the reasons presented vis-à-vis claim 1. The remaining claims, claims 2-10, 12-20, and 22-30 depend from claims 1, 11, and 21, respectively. Therefore, the examiner has failed to state a *prima facie* obviousness rejection against these claims, at least for the reasons presented vis-à-vis claim 1.

Furthermore, the examiner has failed to state *prima facie* obviousness rejections against the remaining dependent claims for additional reasons. For example, neither *Baugh* nor *Herlin* teaches or suggests receiving, within a Java application executing within the computer system, the input signal from the external microphone as claimed in claim 4. Additionally, neither *Baugh* nor *Herlin* teach or suggest providing a second conventional cellular telephone as claimed in

claim 6. Furthermore, neither *Baugh* nor *Herlin* teach or suggest exchanging a private key between the computer system and the second computer system prior to transmission of cellular telephone signals, as claimed in claim 10. Therefore, because the proposed combination does not teach all of the features of the dependent claims, the examiner has also failed to state *prima facie* obviousness rejections against the dependent claims. Accordingly, the rejection of claims 1-30 under 35 U.S.C. § 103 has been overcome.

IV. Summary

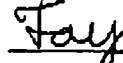
The examiner failed to state a *prima facie* obviousness rejection against claim 1 because the examiner ignored features of the claims. The examiner also failed to state a *prima facie* obviousness rejection against claim 1 because neither *Baugh* nor *Herlin* teach or suggest all of the features of the claims. The examiner also failed to state a *prima facie* obviousness rejection against claim 1 because no motivation exists to combine *Baugh* and *Herlin* in the light that both references specifically teach away from the claims. The examiner also failed to state a *prima facie* obviousness rejection against the remaining claims for the above reasons and also because neither reference teaches or suggests the features of the remaining claims.

V. Conclusion

It is respectfully urged that the subject application is patentable over *Baugh* and *Herlin* and is now in condition for allowance. The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,



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